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CLAIMS

1. Use of the promintron sequence of the rolA gene from Agrobacterium rhizogenes as in SEQ ID NO. 1, or of DNA sequences comprising said promintron sequence, or of functional homologous or portion thereof, to induce the expression of a DNA coding sequence, in recombinant bacteria during exponential, post-exponential and stationary phase of growth, and in bacteroids within root nodules, said coding DNA sequence being under the control of said promintron sequence.

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- 2. Use of the promintron sequence according to claim 1 wherein said recombinant bacteria belong to either the *Enterobacteriaceae* or the *Rhizobia*ceae families.
- 15 3. Use of the promintron sequence according to claim 2 wherein said recombinant bacteria belonging to either the Enterobacteriaceae or the Rhizobiaceae families are E. coli, Rhizobia or Agrobacteria.
- 4. Use of the promintron sequence according to claim 3
 wherein said recombinant bacteria are of the Rhizobia genus, either within symbiotic root nodules or in a free living status.
- 5. Use of the promintron sequence according to claim 4 wherein said recombinant bacteria of the Rhizobia genus within symbiotic root nodule, are either bacteroids of stage I, II, III, IV, V, or Rhizobia present in the apoplastic space, or Rhizobia present in the senescence zone, or Rhizobia present in the nitrogen fixing zone, or Rhizobia present in the invasion zone.
 - 6. A recombinant DNA molecule comprising the promintron sequence according to claim 1, or functional homologous or portion thereof, and covalently linked to the 3' end of said promintron sequence, a DNA coding sequence, said recombinant DNA molecule being

- either harboured by prokaryotic episomal elements, or integrated in a bacterial genome.
- 7. The recombinant DNA molecule according to claim 6 wherein said DNA coding sequence is either a monocistronic or a polycistronic transcriptional unit.

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- 8. The recombinant DNA molecule according to claim 7 wherein said DNA coding sequence encodes a protein involved in plant hormone auxin synthesis and/or metabolism.
- 9. The recombinant DNA molecule according to claim 8 wherein said DNA coding sequence encodes a protein involved in the synthesis and/or metabolism of the auxin IAA or of the auxin indolethanol.
- 10. The recombinant DNA molecule according to claim 8 wherein said DNA coding sequence encodes the iaaM protein from *P. syringae* subsp. savastanoi or an homologous thereof.
- 11. The recombinant DNA molecule according to claim 8
 20 wherein said DNA coding sequence encodes the tms2
 protein from A. tumefaciens or an homologous
 thereof.
- 12. The recombinant DNA molecule according to claim 8 wherein said DNA coding sequence encodes both the iaaM and the tms2 coding regions of claim 10 and 11, respectively.
 - 13. The recombinant DNA molecule according to claim 8 wherein said DNA coding sequence encodes the indolepyruvate decarboxylase from *Enterobacter cloacae* or an homologous thereof.

- 14. Genetically engineered bacteria comprising the recombinant DNA molecule according to claims from 6 to 13.
- 15. Use of the recombinant DNA molecule according to claims from 6 to 13 to significantly increase the size of nodules of a plant.

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- 16. Use of the recombinant DNA molecule according to claim 15 wherein said statistically significant increase of the nodule size is of at least 20%.
- 10 17. Use of the recombinant DNA molecule according to claims from 6 to 13 to significantly increase the capacity to fix nitrogen of a nodulated plant.
 - 18. Use of the recombinant DNA molecule according to claim 17 wherein said statistically significant increase of the capacity to fix nitrogen is of at least 20%.
 - 19. Use of the recombinant DNA molecule according to claims from 6 to 13 to significantly increase the plant biomass production.
- 20 20. Use of the recombinant DNA molecule according to claim 19 wherein said statistically significant increase of the plant biomass production is of at least 10%.
- 21. Legume plant infected by bacteria harbouring the recombinant DNA molecule according to claims from 6 to 13 and having a significant increase of the size of nodules, and/or of the nodule capacity to fix nitrogen, and/or of the plant biomass, and/or of the ability to fix nitrogen.